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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/822,104	03/30/2001	Thomas B. Harsch	TELNP137USA	1162

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Himanshu S. Amin  
Amin & Turocy, LLP  
National City Center, 24th Floor  
1900 East Ninth Street  
Cleveland, OH 44114

EXAMINER

CHO, HONG SOL

ART UNIT

PAPER NUMBER

2662

DATE MAILED: 06/01/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/822,104

Applicant(s)

HARSCH, THOMAS B.

Examiner

Hong Cho

Art Unit

2662

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on 18 February 2005.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 30 and 32-49 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 30, 32, 35-40 and 46-49 is/are rejected.
- 7) ☒ Claim(s) 33, 34 and 41-45 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 18 February 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Response to Amendment*

1. The following is a response to the amendments filed on 2/18/2005.

### *Claim Rejections - 35 USC § 103*

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 30, 32, 35-38, and 47-49 are rejected under 35 U.S.C. 103(a) as being unpatentable over Haas (U.S. 5566225) in view of Rackley (U.S. 4742357).

Re claims 30, 35, 38, and 47-49, Haas discloses a system which monitors the flow of data during a communication session between a mobile end-user device and a host (*a network device for use in a communication system*) via a wireless link established over a wireless network. Haas discloses a processor in the host receiving a keepalive packet from a mobile end-user device (*the processor of the network device receives an unsolicited transparent keepalive packet from the mobile communication unit at predetermined intervals*, column 4, lines 5-7). Haas fails to disclose a host with a transceiver for communication to the mobile device; however, it is inherent that a host in

wireless communication should be equipped with a transceiver to communicate with a mobile device. Haas discloses ending an established connection if no communication is received from a mobile communication unit in a predetermined period of time (column 2, lines 56-59). Haas fails to disclose the keepalive packet serving to reset the predetermined period of time such that the network device does not end the established connection. Rackley discloses resetting keepalive timer to indicate continued activity (column 6, lines 7-10). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Haas to adopt the process of Rackley in keeping communication session up so that there would be no disruption of the session communication.

Re claim 32, Haas discloses determining a predetermined period by the timer (*the predetermined period of time being determined by a keepidle timer*, column 6, lines 45-47).

Re claim 36, Haas discloses a host receiving a keepalive packet from a mobile end-user device (*the processor of the network device receives a keepalive packet from the mobile communication unit periodically*, column 4, lines 5-7). Haas fails to disclose receiving the keepalive packet in time intervals less than the predetermined time set by the network device. However, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify a predetermined time longer than keepalive packet intervals so that an existing connection is not torn down before a next keepalive packet is arrived.

Re claim 37, Haas discloses TCP communication between the mobile user and a host (column 3, lines 46-52).

Claims 39, 40 and 46 are rejected under 35 U.S.C. 103(a) as being unpatentable over Haas in view of Dillon (U.S. 5995726).

Re claims 39, 40 and 46, Haas discloses ending an established connection if no communication is received from a mobile communication unit in a predetermined period of time (column 2, lines 56-59). Haas fails to disclose the keepalive packet comprising a preamble field having synchronizing bits for allowing the network device to synchronize to the packet, a source address field holding the address of the mobile communication unit, a destination field holding the address of the network device, a sending sequence field relating to the number of bytes of the packet, a last sequence field provided to allow the network device to determine the last sequence number sent by the network device and error correction field provided to allow the network device to determine if it has properly received the packet. Dillon discloses a tunneled IP packet with TCP packet format comprising preamble field, a header field, source address field, destination address field, sequence number field, acknowledgement number field, checksum field (figures 5 and 11). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Haas' keepalive packet to have packet fields of Dillon so that the packet is exchanged according to TCP/IP protocol stack.

*Allowable Subject Matter*

4. Claim 33, 34 and 41-45 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is an examiner's statement of reasons for allowance:

5. Claim 33 is allowable over the prior art of record since the cited references taken individually or in combination fail to particularly teach or fairly suggest the network device sending a keepalive probe upon expiration of the keepalive timer and resetting at least one of the keepidle timer and the predetermined response period.

Claim 34 is allowable over the prior art of record since the cited references taken individually or in combination fail to particularly teach or fairly suggest the network device wherein the predetermined period of time comprising the time it takes for a keepidle timer to expire, a keep alive probe to be sent upon expiration of the keepidle timer and a predetermined response time for the mobile communication unit to respond to the keep alive probe to expire.

Claim 41 is allowable over the prior art of record since the cited references taken individually or in combination fail to particularly teach or fairly suggest a keepalive packet comprising a number representative of a random starting number chosen by the mobile communication unit plus the number of bytes of data inside the packet.

Claim 42 is allowable over the prior art of record since the cited references taken individually or in combination fail to particularly teach or fairly suggest a keepalive

packet wherein the sending sequence field comprising a number one less than a sending sequence number expected by the network device.

Claim 45 is allowable over the prior art of record since the cited references taken individually or in combination fail to particularly teach or fairly suggest a keepalive packet wherein the sending sequence field comprising a number equal to the last number stored in a stack of the mobile communication unit plus the number of bytes of the packet.

#### *Response to Arguments*

6. The Examiner apologizes that after reviewing a case and a prior art the rejection appear to be justified.


#### *Conclusion*

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.
- US Patent (5442637) to Nguyen discloses reducing the complexities of TCP for a high-speed networking environment
  - US Patent (6389129) to Cowan discloses interface for interfacing client programs with network devices
8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hong Cho whose telephone number is 571-272-3087. The examiner can normally be reached on Mon-Fri during 7 am to 4 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hassan Kizou can be reached on 571-272-3088. The fax phone number for the organization where this application or proceeding is assigned is 571-273-3088.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

*hc*  
Hong Cho  
Patent Examiner  
5/17/2005

  
**JOHN PEZZLO**  
**PRIMARY EXAMINER**